	Type	L #	Hits	Search Text	DBs	Time Stamp	Comments	Error Definition	Errors
1	BRS	L1	27	(cartilage adj oligomeric adj matrix adj protein) or (thrombospondin-5)	USPAT; US-PGPUB; EPO; JPO; DERWENT	2003/01/03 10:38			0
2	BRS	L2	38	hCOMP or (cartilage adj oligomeric adj matrix adj protein) or (thrombospondin-5)	USPAT; US-PGPUB; EPO; JPO; DERWENT	2003/01/03 10:38			0
3	BRS	L3	6634	trypsin same (cleav$3 or digest$3)	USPAT; US-PGPUB; EPO; JPO; DERWENT	2003/01/03 10:39			0
4	BRS	L4	0	2 same 3	USPAT; US-PGPUB; EPO; JPO; DERWENT	2003/01/03 10:39			0
5	BRS	L5	4051	Elisa same kit	USPAT; US-PGPUB; EPO; JPO; DERWENT	2003/01/03 10:40			0
6	BRS	L6	0	2 same 5	USPAT; US-PGPUB; EPO; JPO; DERWENT	2003/01/03 10:40			0
7	BRS	L7	116691	(biological adj matrix) or cartilage or (bone adj matrix) or collagen or hyaluronan or (fibrin adj gel) or (carbon adj fiber) or (polylactic adj acid)	USPAT; US-PGPUB; EPO; JPO; DERWENT	2003/01/03 10:42			0
8	BRS	L8	27	7 same 2	USPAT; US-PGPUB; EPO; JPO; DERWENT	2003/01/03 10:47			0
9	BRS	L9	2	7 same 2 same composition	USPAT; US-PGPUB; EPO; JPO; DERWENT	2003/01/03 10:48			0
10	BRS	L10	3130	chondrocyte or (mesenchymal adj stem adj cell)	USPAT; US-PGPUB; EPO; JPO; DERWENT	2003/01/03 10:50			0

	Type	L #	Hits	Search Text	DBs	Time Stamp	Comments	Error Definition	Errors
11	BRS	L11	280	differentiation adj agent	USPAT; US-PGPUB; EPO; JPO; DERWENT	2003/01/03 10:50			0
12	BRS	L12	0	chondrocyte adj sulfate adj proteoglycan	USPAT; US-PGPUB; EPO; JPO; DERWENT	2003/01/03 10:50			0
13	BRS	L13	8401	(collagen adj gel) or (polylactic adj acid)	USPAT; US-PGPUB; EPO; JPO; DERWENT	2003/01/03 10:51			0
14	BRS	L14	0	13 same 2	USPAT; US-PGPUB; EPO; JPO; DERWENT	2003/01/03 10:52			0
15	BRS	L15	1	8 same (10 or 11)	USPAT; US-PGPUB; EPO; JPO; DERWENT	2003/01/03 10:52			0

	Type	L #	Hits	Search Text	DBs	Time Stamp	Comments	Error Definition	Errors
1	BRS	L1	38	hCOMP or (cartilage adj oligomeric adj matrix adj protein) or (thrombospondin-5)	USPAT; US-PGPUB; EPO; JPO; DERWENT	2003/01/03 11:42			0
2	BRS	L2	116	chen adj hui.in.	USPAT; US-PGPUB; EPO; JPO; DERWENT	2003/01/03 11:42			0
3	BRS	L3	23	lawler adj john.in.	USPAT; US-PGPUB; EPO; JPO; DERWENT	2003/01/03 11:43			0
4	BRS	L4	0	1 same (2 or 3)	USPAT; US-PGPUB; EPO; JPO; DERWENT	2003/01/03 11:43			0

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=> file medline caplus biosis embase scisearch agricola
COST IN U.S. DOLLARS                                SINCE FILE      TOTAL
                                                       ENTRY    SESSION
FULL ESTIMATED COST                                     0.21       0.21

FILE 'MEDLINE' ENTERED AT 11:00:57 ON 03 JAN 2003

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FILE 'AGRICOLA' ENTERED AT 11:00:57 ON 03 JAN 2003

=> s (cartilage oligomeric matrix protein) or thrombospondin-5
L1           955 (CARTILAGE OLIGOMERIC MATRIX PROTEIN) OR THROMBOSPONDIN-5

=> s l1 or hcomp
L2           969 L1 OR HCOMP

=> s l2 (p) trypsin (p) (cleav? or digest?)
L3            10 L2 (P) TRYPSIN (P) (CLEAV? OR DIGEST?)

=> duplicate remove l3
DUPLICATE PREFERENCE IS 'MEDLINE, CAPLUS, BIOSIS, EMBASE, SCISEARCH'
KEEP DUPLICATES FROM MORE THAN ONE FILE?  Y/(N):n
PROCESSING COMPLETED FOR L3
L4             2 DUPLICATE REMOVE L3 (8 DUPLICATES REMOVED)

=> d l4 1-2 ibib abs

L4   ANSWER 1 OF 2     MEDLINE                              DUPLICATE 1
ACCESSION NUMBER:   2000458618     MEDLINE
DOCUMENT NUMBER:    20409010   PubMed ID: 10852928
TITLE:              Cartilage oligomeric matrix protein is a calcium-binding
                    protein, and a mutation in its type 3 repeats causes
                    conformational changes.
AUTHOR:             Chen H; Deere M; Hecht J T; Lawler J
CORPORATE SOURCE:   Division of Tumor Biology and Angiogenesis, Department of
                    Pathology, Beth Israel Deaconess Medical Center and Harvard
                    Medical School, Boston, Massachusetts 02215, USA.
CONTRACT NUMBER:    HL49081 (NHLBI)
SOURCE:             JOURNAL OF BIOLOGICAL CHEMISTRY, (2000 Aug 25) 275 (34)
                    26538-44.
                    Journal code: 2985121R. ISSN: 0021-9258.
PUB. COUNTRY:       United States
DOCUMENT TYPE:      Journal; Article; (JOURNAL ARTICLE)
LANGUAGE:           English
FILE SEGMENT:       Priority Journals
ENTRY MONTH:        200009
ENTRY DATE:         Entered STN: 20001005
                    Last Updated on STN: 20001005
                    Entered Medline: 20000925
AB   Mutations in residues in the type 3 calcium-binding repeats and
     COOH-terminal globular region of   ***cartilage***     ***oligomeric***
       ***matrix***     ***protein***   (COMP) lead to two skeletal dysplasias,
     pseudoachondroplasia and multiple epiphyseal dysplasia. It has been
     hypothesized that these mutations cause COMP to misfold and to be retained
     in the endoplasmic reticulum. However, this hypothesis is not supported by
     previous reports that COMP, when purified in the presence of EDTA, shows
     no obvious difference in electron microscopic appearance in the presence
```

or absence of calcium ions. Since this discrepancy may be due to the removal of calcium during pu[redacted]ication, we have expressed wil[redacted]ype COMP and the most common mutant form found in pseudoachondroplasia, MUT3, using a mammalian expression system and have purified both proteins in the presence of calcium. Both proteins are expressed as pentamers. Direct calcium binding experiments demonstrate that wild-type COMP, when purified in the presence of calcium, is a calcium-binding protein. Rotary shadowing electron microscopy and limited ***trypsin*** ***digestion*** at various calcium concentrations show that there are conformational changes associated with calcium binding to COMP. Whereas COMP exists in a more compact conformation in the presence of calcium, it shows a more extended conformation when calcium is removed. MUT3, with a single aspartic acid deletion in the type 3 repeats, binds less calcium and presents an intermediate conformation between the calcium-replete and calcium-depleted forms of COMP. In conclusion, we show that a single mutation in the type 3 repeats of COMP causes the mutant protein to misfold. Our data demonstrate the importance of calcium binding to the structure of COMP and provide a plausible explanation for the observation that mutations in the type 3 repeats and COOH-terminal globular region lead to pseudoachondroplasia.

L4 ANSWER 2 OF 2 MEDLINE DUPLICATE 2
ACCESSION NUMBER: 1998161946 MEDLINE
DOCUMENT NUMBER: 98161946 PubMed ID: 9501326
TITLE: The distribution of cartilage oligomeric matrix protein (COMP) in tendon and its variation with tendon site, age and load.
AUTHOR: Smith R K; Zunino L; Webbon P M; Heinegard D
CORPORATE SOURCE: Department of Farm Animal and Equine Medicine and Surgery, Royal Veterinary College, Hatfield, Hertfordshire, UK.
SOURCE: MATRIX BIOLOGY, (1997 Nov) 16 (5) 255-71.
Journal code: 9432592. ISSN: 0945-053X.
PUB. COUNTRY: GERMANY: Germany, Federal Republic of
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals; Space Life Sciences
ENTRY MONTH: 199805
ENTRY DATE: Entered STN: 19980514
Last Updated on STN: 19980514
Entered Medline: 19980504

AB A protein prominent in guanidine hydrochloride extracts of adult bovine and equine digital flexor tendons was confirmed to be ***Cartilage*** ***Oligomeric*** ***Matrix*** ***Protein*** (COMP) by non-reducing and reducing SDS-PAGE, reaction with rabbit anti-COMP polyclonal antiserum on Western blots, ***trypsin*** ***digestion*** followed by HPLC on a C2/C18 column, and identification of COMP mRNA from tendon on Northern blots. Immunohistochemistry and Western blots of extracts showed COMP to be present in all regions of digital flexor tendons. Equine tendon COMP was purified by ion exchange chromatography and gel filtration and used in a heterologous inhibition ELISA to quantify COMP in equine digital flexor tendons at different ages, and in other tendons and ligaments. Mean COMP levels in digital flexor tendon were approximately 2-5mg/g wet weight, but they showed a large variation. Levels were low in neonatal tendon but rose rapidly during growth, with the metacarpal (tensional) superficial digital flexor tendon having the highest levels (approximately 10mg/g wet weight). Levels subsequently declined in this region, while in areas which experience a variable amount of compression, levels increased less but then remained constant. Extensor tendons and collateral ligaments, which experience less loading in vivo, had levels similar to those in neonatal tendon. COMP was identified in scarred skin and granulation tissue but not in normal skin, chronic fibrosis, or a fibrosarcomatous skin growth. A unilateral non-weight-bearing growing animal contained three to six times more COMP in the weight-bearing digital flexor tendons compared to the paralyzed limb, while the extensor tendons had similar amounts in both limbs. With the recent discovery of a COMP gene mutation causing pseudoachondroplasia (Hecht et al., 1995), in which lax tendons and ligaments are a feature, the present data suggest that COMP is synthesized in response to, and is necessary for tendon to resist, load.

=> s elisa (p) kit
L5 7475 ELISA (P) KIT

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=> d his

     (FILE 'HOME' ENTERED AT 11:00:32 ON 03 JAN 2003)

     FILE 'MEDLINE, CAPLUS, BIOSIS, EMBASE, SCISEARCH, AGRICOLA' ENTERED AT
     11:00:57 ON 03 JAN 2003
L1           955 S (CARTILAGE OLIGOMERIC MATRIX PROTEIN) OR THROMBOSPONDIN-5
L2           969 S L1 OR HCOMP
L3            10 S L2 (P) TRYPSIN (P) (CLEAV? OR DIGEST?)
L4             2 DUPLICATE REMOVE L3 (8 DUPLICATES REMOVED)
L5          7475 S ELISA (P) KIT

=> s l5 (p) l2
L6             0 L5 (P) L2

=> s (biological matrix) or cartilage or (bone matrix) or collagen or hyaluronan or (fibrin gel) o
L7        616907 (BIOLOGICAL MATRIX) OR CARTILAGE OR (BONE MATRIX) OR COLLAGEN
                 OR HYALURONAN OR (FIBRIN GEL) OR (CARBON FIBER) OR (POLYLACTIC
                 ACID)

=> s l2 (p) l7 (p) composition
L8            16 L2 (P) L7 (P) COMPOSITION

=> duplicate remove l8
DUPLICATE PREFERENCE IS 'MEDLINE, CAPLUS, BIOSIS, EMBASE, SCISEARCH'
KEEP DUPLICATES FROM MORE THAN ONE FILE? Y/(N):n
PROCESSING COMPLETED FOR L8
L9             8 DUPLICATE REMOVE L8 (8 DUPLICATES REMOVED)

=> d l9 1-8 ibib abs

L9   ANSWER 1 OF 8     MEDLINE                              DUPLICATE 1
ACCESSION NUMBER:   2002723012     IN-PROCESS
DOCUMENT NUMBER:    22373340   PubMed ID: 12485691
TITLE:              The influence of ageing and exercise on tendon growth and
                    degeneration-hypotheses for the initiation and prevention
                    of strain-induced tendinopathies.
AUTHOR:             Smith R K W; Birch H L; Goodman S; Heinegard D; Goodship A
                    E
CORPORATE SOURCE:   Department of Veterinary Clinical Sciences, The Royal
                    Veterinary College, Hawkshead Lane, North Mymms, Herts. AL9
                    7TA, Hatfield, UK.
SOURCE:             COMPARATIVE BIOCHEMISTRY AND PHYSIOLOGY. PART A, MOLECULAR
                    AND INTEGRATIVE PHYSIOLOGY, (2002 Dec) 133 (4) 1039-50.
                    Journal code: 9806096. ISSN: 1095-6433.
PUB. COUNTRY:       United States
DOCUMENT TYPE:      Journal; Article; (JOURNAL ARTICLE)
LANGUAGE:           English
FILE SEGMENT:       IN-PROCESS; NONINDEXED; Priority Journals
ENTRY DATE:         Entered STN: 20021218
                    Last Updated on STN: 20021218
AB   Strain-induced tendinopathy is a common injury in both human and equine
     athletes, with increasing incidence associated with greater involvement in
     sport and an increasingly aged population. This paper reviews our studies
     on the abundant non-collagenous protein,   ***cartilage***
       ***oligomeric***     ***matrix***     ***protein***   (COMP), in equine
     tendons. Its variation between tendon type and site, age and exercise has
     provided an insight into how age and exercise influence tendon growth and
     maturation. Tendons can be broadly divided into two types, reflecting
     their different matrix   ***composition***   and function: the
     energy-storing tendons used for weight-bearing and locomotion, which
     suffer a high incidence of strain-induced tendinopathy, and positional
     tendons involved in limb placement or manipulative skills. It would appear
     that while energy-storing tendon can respond to the mechanical forces
     applied to it during growth, there is no evidence that it can do so after
     skeletal maturity. Instead, cumulative fatigue damage causes degeneration
     at the molecular level, potentially weakening it and increasing the risk
     of clinical injury. Appropriate exercise regimes early in life may help to
     improve the quality of growing tendon, thereby reducing the incidence of
     injury during ageing or subsequent athletic career.
```

L9 ANSWER 2 OF 8 MEDLINE DUPLICATE 2
ACCESSION NUMBER: 2001011600 MEDLINE
DOCUMENT NUMBER: 20385047 PubMed ID: 10924396
TITLE: Differences in the concentration of various synovial fluid constituents between the distal interphalangeal joint, the metacarpophalangeal joint and the navicular bursa in normal horses.
AUTHOR: Viitanen M; Bird J; Maisi P; Smith R; Tulamo R M; May S
CORPORATE SOURCE: Farm Animal and Equine Medicine and Surgery, Royal Veterinary College, University of London, UK.
SOURCE: RESEARCH IN VETERINARY SCIENCE, (2000 Aug) 69 (1) 63-7. Journal code: 0401300. ISSN: 0034-5288.
PUB. COUNTRY: ENGLAND: United Kingdom
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 200010
ENTRY DATE: Entered STN: 20010322
Last Updated on STN: 20010322
Entered Medline: 20001023

AB As a prerequisite for the identification of navicular disease markers, the concentrations of ***cartilage*** ***oligomeric*** ***matrix*** ***protein*** (COMP), total glycosaminoglycans (GAG), ***hyaluronan*** , metalloproteinases (MMP) 2 and 9 and total protein were measured in synovial fluid samples obtained from the distal interphalangeal joint (DIP), the metacarpophalangeal joint (MCP) and the navicular bursa of 24 horses. Mean GAG, COMP and total protein levels were significantly higher in the DIP joint and in the navicular bursa compared to the MCP joint. ***Hyaluronan*** content was lower. MMP -2 activity was present in all fluids measured and had similar levels in different joints. MMP -9 was present in 42 per cent of MCP joint samples and 58 per cent of DIP joint samples and of navicular bursal samples. In relation to the constituents measured, the ***composition*** of navicular bursal fluid was similar to the articular synovial fluids, in particular that obtained from the DIP joint. Correlation between the constituents of DIP joint fluid and navicular bursal fluid obtained from the same legs was statistically significant for all the parameters measured.

L9 ANSWER 3 OF 8 MEDLINE
ACCESSION NUMBER: 2000124477 MEDLINE
DOCUMENT NUMBER: 20124477 PubMed ID: 10659252
TITLE: Should equine athletes commence training during skeletal development?: changes in tendon matrix associated with development, ageing, function and exercise.
AUTHOR: Smith R K; Birch H; Patterson-Kane J; Firth E C; Williams L; Cherdchutham W; van Weeren W R; Goodship A E
CORPORATE SOURCE: Royal Veterinary College, Hatfield, Herts, UK.
SOURCE: EQUINE VETERINARY JOURNAL. SUPPLEMENT, (1999 Jul) 30 201-9. Journal code: 9614088.
PUB. COUNTRY: ENGLAND: United Kingdom
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 200003
ENTRY DATE: Entered STN: 20000314
Last Updated on STN: 20000314
Entered Medline: 20000302

AB In human athletes, conditioning, training and competition are commenced before skeletal maturity. Yet in equine athletics, racing of young (age 2 years) horses remains contentious. Tendon injury persists as major causes of wastage in equine athletes. Minimising injury and associated welfare issues could involve a radical approach to the timing and implementation of conditioning and training. Tendons were examined from Thoroughbreds, Dutch Warmblood foals, working horses and also a group of wild horses to evaluate effects of age, function and exercise. Gross mechanical properties did not differ significantly with age or exercise, but showed a high variance within each group. Mechanical properties of tendon tissue showed significant differences as a function of age and location. The ***collagen*** fibril crimp angle and length showed a regional reduction in the central core with exercise and age, with a synergistic effect. Regional differences in ***collagen*** fibril diameter were seen in long-term exercised older horses, but not in short-term exercised, or

younger, horses. The higher proportion of small fibrils in the central region of the long-term exercised horses did not correlate with new ***collagen*** formation and therefore appear to result from disassembly of the larger diameter fibrils. Fibril diameter distributions were influenced by exercise regimens in the growing foal. Changes in molecular ***composition*** occurred in longer-term exercise and older horses, in the centre of the tendon, with higher levels of type III ***collagen*** and changes in glycosaminoglycan (GAG) content. ***Cartilage*** ***Oligomeric*** ***Matrix*** ***Protein*** (COMP) levels also appear to be modulated by age, function and superimposition of exercise. These changes were all exacerbated with age and exercise, suggesting appropriate exercise in young horses may lead to a lower incidence of injury than in older horses. An hypothesis is advanced that immature tendon can respond to exercise while mature tendon has limited, if any, ability to do so. These findings support potentially controversial earlier conditioning and racing of younger, rather than older, equine athletes.

L9 ANSWER 4 OF 8 MEDLINE
ACCESSION NUMBER: 2000447094 MEDLINE
DOCUMENT NUMBER: 20452295 PubMed ID: 10999666
TITLE: Age-related changes and effect of exercise on the molecular composition of immature equine superficial digital flexor tendons.
AUTHOR: Cherdchutham W; Becker C; Smith R K; Barneveld A; van Weeren P R
CORPORATE SOURCE: Department of Equine Sciences, Faculty of Veterinary Medicine, Utrecht University, The Netherlands.
SOURCE: EQUINE VETERINARY JOURNAL. SUPPLEMENT, (1999 Nov) (31) 86-94.
Journal code: 9614088.
PUB. COUNTRY: ENGLAND: United Kingdom
DOCUMENT TYPE: (CLINICAL TRIAL)
Journal; Article; (JOURNAL ARTICLE)
(RANDOMIZED CONTROLLED TRIAL)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 200010
ENTRY DATE: Entered STN: 20001027
Last Updated on STN: 20001027
Entered Medline: 20001019

AB To test the hypothesis that exercise at very young age may influence the eventual molecular ***composition*** (and hence the biomechanical properties) of tendon tissue in the horse, 43 Dutch Warmblood foals were allotted to 3 differently exercised groups (box-rest, box-rest with training and pasture exercise). Twenty-four superficial digital flexor tendons (SDFTs) were collected at age 5 months (8 from each exercise group) and the others were obtained at 11 months after an additional period of light exercise that was equal for all remaining foals and was intended to see if any induced changes would be reversible or not. Significant changes in DNA content (cellularity), hyaluronic acid (HA) and polysulphated glycosaminoglycans (PSGAGs) were found after the 5 month period of different exercise regimens. There was a tendency towards an exercise-related effect on hydroxylysine content and number of hydroxylysylpyridinoline (HP) crosslinks. Levels of ***Cartilage*** ***Oligomeric*** ***Matrix*** ***Protein*** (COMP), measured by homologous inhibition ELISA, showed significant differences at 5 months and were highest in foals kept at pasture and lowest in foals maintained in a box but given enforced exercise. At 11 months, the biochemical parameters of the tendons from the foals of the former box-rest and pasture groups became similar, indicating the capacity of the immature tendon to recover from a retarded development. However, the ratio of PSGAGs per unit of DNA of the former training group was significantly lower than those from the other groups, suggesting that the training regimen in this study had a lasting negative effect on the tenocytes resulting in a decrease of the production of PSGAGs. Therefore, inappropriate or excessive exercise may damage developing tendon, with limited recovery after normalising the exercise level. These possibly deleterious effects of a training regimen on tendon development may be important for the management of young would-be equine athletes.

L9 ANSWER 5 OF 8 CAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 1998:706109 CAPLUS

DOCUMENT NUMBER: 129:285993
TITLE: Use of cartilage oligomeric matrix protein for the treatment of rheumatoid arthritis
INVENTOR(S): Heinegard, Dick; Lorentzen, Johnny C.; Klareskog, Lars
PATENT ASSIGNEE(S): Astra AB, Swed.
SOURCE: PCT Int. Appl., 27 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9846253	A1	19981022	WO 1998-SE682	19980414
W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, GM, GW, HU, ID, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG				
AU 9870938	A1	19981111	AU 1998-70938	19980414
AU 746221	B2	20020418		
BR 9808591	A	20000523	BR 1998-8591	19980414
EP 1019078	A1	20000719	EP 1998-917896	19980414
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
JP 2001520647	T2	20011030	JP 1998-543820	19980414
NO 9905004	A	19991014	NO 1999-5004	19991014
US 2001002392	A1	20010531	US 2000-750208	20001228

PRIORITY APPLN. INFO.: SE 1997-1409 A 19970415
WO 1998-SE682 W 19980414
US 1998-125937 A1 19980828

AB Use of ***cartilage*** ***oligomeric*** ***matrix*** ***protein*** (COMP), or fragments or analogs thereof, for the manuf. of a pharmaceutical ***compn*** . for prevention or treatment of arthritic conditions is described, wherein the pharmaceutical ***compn*** . is administered in an amt. effective to prevent or treat the arthritic condition. The arthritogenicity of, and humoral reaction to, bovine COMP in rats is described.

REFERENCE COUNT: 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L9 ANSWER 6 OF 8 SCISEARCH COPYRIGHT 2003 ISI (R)
ACCESSION NUMBER: 96:861470 SCISEARCH
THE GENUINE ARTICLE: VT565
TITLE: Patterns of glycosylation in ***cartilage*** ***oligomeric*** ***matrix*** ***protein*** measured by monosaccharide ***composition*** analysis, MALDI/TOF and electrospray mass spectrometry
AUTHOR: Zaia J (Reprint); Boynton R; Heinegard D; Barry F
CORPORATE SOURCE: OSIRIS THERAPEUT INC, BALTIMORE, MD 21231
COUNTRY OF AUTHOR: USA
SOURCE: GLYCOBIOLOGY, (OCT 1996) Vol. 6, No. 7, pp. 115-115.
Publisher: OXFORD UNIV PRESS UNITED KINGDOM, WALTON ST JOURNALS DEPT, OXFORD, ENGLAND OX2 6DP.
ISSN: 0959-6658.
DOCUMENT TYPE: Conference; Journal
FILE SEGMENT: LIFE
LANGUAGE: English
REFERENCE COUNT: 0

L9 ANSWER 7 OF 8 MEDLINE DUPLICATE 3
ACCESSION NUMBER: 96195288 MEDLINE
DOCUMENT NUMBER: 96195288 PubMed ID: 8619919
TITLE: Predictors of joint damage in rheumatoid arthritis.
AUTHOR: Wollheim F A
CORPORATE SOURCE: Department of Rheumatology, Lund University Hospital, Sweden.
SOURCE: APMIS, (1996 Feb) 104 (2) 81-93. Ref: 103

Journal code: 8803400. ISSN: 0903-4641.
PUB. COUNTRY: Denmark
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
General Review; (REVIEW)
(REVIEW, ACADEMIC)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 199606
ENTRY DATE: Entered STN: 19960627
Last Updated on STN: 19980206
Entered Medline: 19960614

AB Rheumatoid arthritis (RA) is the dominant form of destructive chronic arthritis with the potential to cause substantial disability and permanent functional impairment. The final extent and progression rate with time, however, varies markedly. In order to study effects of intervention and to support early aggressive and atoxic therapy in selected cases, predictive disease markers are needed. Recent advances regarding joint tissue ***composition*** and pathophysiology have defined a number of biological marker candidates which need to be explored for possible prognostic information. Some markers are characteristic for RA, such as rheumatoid factors and certain autoantibodies, which although they are more prevalent among patients with aggressive disease are not sensitive as predictors in early disease. Genetic susceptibility markers have been claimed to be good predictors of persisting arthritis in early synovitis clinics, but their role as severity markers in established disease is limited. Unspecific markers of inflammation, notably ESR or CRP when persistently elevated, are useful to monitor disease course and newer markers need to document their superiority over these. Another group of markers are attractive because of enriched or exclusive occurrence in joint tissue, and altered metabolism in joint disease. Thus, ***collagen*** type III propeptides, hyaluronates, and neopterin originating in the synovium could be useful, and, in particular, hyaluronate levels indeed do provide some predictive information. Highly tissue-specific ***cartilage*** metabolites include aggrecan fragments, ***collagen*** II fragments, ***cartilage*** ***oligomeric*** ***matrix*** ***protein*** (COMP) and the extraarticular ***cartilage*** matrix protein (CMP). When used alone or in combination in early disease some information can be obtained which may in the future facilitate prognostication. Bone metabolism can be monitored and there are different markers for synthesis and resorption. Meanwhile, whilst the new markers are essential research tools, their routine clinical usefulness remains to be proven.

L9 ANSWER 8 OF 8 MEDLINE DUPLICATE 4
ACCESSION NUMBER: 93079835 MEDLINE
DOCUMENT NUMBER: 93079835 PubMed ID: 1448898
TITLE: Immunohistochemical localization of matrix proteins in the femoral joint cartilage of growing commercial pigs.
AUTHOR: Ekman S; Heinegard D
CORPORATE SOURCE: Department of Anatomy and Histology, Swedish University of Agricultural Sciences, Uppsala.
SOURCE: VETERINARY PATHOLOGY, (1992 Nov) 29 (6) 514-20.
Journal code: 0312020. ISSN: 0300-9858.
PUB. COUNTRY: United States
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 199212
ENTRY DATE: Entered STN: 19930129
Last Updated on STN: 19930129
Entered Medline: 19921228

AB The immunocytochemical localization of several matrix macromolecules, including ***collagen*** type II and proteoglycans, in the distal femoral articular-epiphyseal ***cartilage*** complex of 15 commercial pigs between the age of 6 and 18 weeks was studied. Early osteochondrotic lesions, i.e., chondronecrosis in the resting region of the growth ***cartilage*** , as well as extensions of necrotic ***cartilage*** into the subchondral bone, were present in all animals, except those 6 weeks old. A battery of antibodies were used for identification of macromolecules in the matrix at different stages of the disease. Chondrocyte involvement in the process could be studied by identifying the sequence of alterations in matrix macromolecules as the lesion developed.

The immunostaining for aggrecan (large aggregating proteoglycans), ***cartilage*** ***oli[redacted]eric*** ***matrix*** *[redacted]rotein*** , fibronectin, ***collagen*** type II, fibromodulin, and biglycan was more prominent in the areas of chondronecrosis, extending into the subchondral bone, than in the normal resting region. This altered pattern of matrix macromolecules resembled that of the matrix of the proliferative chondrocytes and suggests that the chondrocyte maturation had stopped in the proliferative zone. The matrix in the areas of chondronecrosis in the resting region resembled that in the normal resting region. Thus the chondronecrosis appears to have preceded alterations of the matrix ***composition*** . The antibody reactivity pattern was, however, altered in the matrix of the clustered chondrocytes in areas of chondronecrosis. Staining in these regions suggested a more prominent appearance of fibronectin and ***collagen*** type II than in the normal matrix of the resting region. These changes are suggestive of attempt to repair.(ABSTRACT TRUNCATED AT 250 WORDS)

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=> s chondrocyte or (mesenchymal stem cell)
   5 FILES SEARCHED...
L10      46675 CHONDROCYTE OR (MESENCHYMAL STEM CELL)

=> d his

     (FILE 'HOME' ENTERED AT 11:00:32 ON 03 JAN 2003)

     FILE 'MEDLINE, CAPLUS, BIOSIS, EMBASE, SCISEARCH, AGRICOLA' ENTERED AT
     11:00:57 ON 03 JAN 2003
L1           955 S (CARTILAGE OLIGOMERIC MATRIX PROTEIN) OR THROMBOSPONDIN-5
L2           969 S L1 OR HCOMP
L3            10 S L2 (P) TRYPSIN (P) (CLEAV? OR DIGEST?)
L4             2 DUPLICATE REMOVE L3 (8 DUPLICATES REMOVED)
L5          7475 S ELISA (P) KIT
L6             0 S L5 (P) L2
L7        616907 S (BIOLOGICAL MATRIX) OR CARTILAGE OR (BONE MATRIX) OR COLLAGEN
L8            16 S L2 (P) L7 (P) COMPOSITION
L9             8 DUPLICATE REMOVE L8 (8 DUPLICATES REMOVED)
L10        46675 S CHONDROCYTE OR (MESENCHYMAL STEM CELL)

=> s differentiation agent
L11          784 DIFFERENTIATION AGENT

=> s chontrocyte sulfate proteoglycan
L12            0 CHONTROCYTE SULFATE PROTEOGLYCAN

=> s l9 (p) (l10 or l11)
PROXIMITY OPERATOR LEVEL NOT CONSISTENT WITH
FIELD CODE - 'AND' OPERATOR ASSUMED 'L77 (P) '
PROXIMITY OPERATOR LEVEL NOT CONSISTENT WITH
FIELD CODE - 'AND' OPERATOR ASSUMED 'L79 (P) '
PROXIMITY OPERATOR LEVEL NOT CONSISTENT WITH
FIELD CODE - 'AND' OPERATOR ASSUMED 'L83 (P) '
L13            1 L9 (P) (L10 OR L11)

=> d his

     (FILE 'HOME' ENTERED AT 11:00:32 ON 03 JAN 2003)

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L8            16 S L2 (P) L7 (P) COMPOSITION
L9             8 DUPLICATE REMOVE L8 (8 DUPLICATES REMOVED)
L10        46675 S CHONDROCYTE OR (MESENCHYMAL STEM CELL)
L11          784 S DIFFERENTIATION AGENT
L12            0 S CHONTROCYTE SULFATE PROTEOGLYCAN
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L13 1 S L9 (P) (L10 OR L11)

=> log y

COST IN U.S. DOLLARS	SINCE FILE ENTRY	TOTAL SESSION
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